Explaining Inconsistencies in Implicit and Explicit Attitudes towards Domestic and Foreign Products

Introduction

Extant research indicates that many consumers around the world tend to favour (at varying degrees) domestic products over foreign products (Herche, 1992; Shimp and Sharma, 1987; Supphellen and Rittenburg, 2001). Scholars use different terms such as "domestic country bias" (DCB) (Balabanis and Diamantopoulos, 2004) or "home country bias" (Johansson et al. 1985; Verlegh, 2007) to describe this phenomenon. DCB refers to the "bias against foreign products and in favour of domestic ones" (Balabanis and Diamantopoulos, 2004, p. 80) and it is assessed by comparing consumer attitudes towards domestic products with attitudes towards matching foreign products (Schooler, 1965).

Empirical evidence shows that DCB varies in its intensity from country to country (Durvasula, Andrews, and Netemeyer, 1997) and also from product category to product category (Balabanis and Diamantopoulos, 2004; Cleveland, Laroche, and Papadopoulos, 2009; Verlegh, 2007).

DCB also seems to vary by whether the attitudes measured are implicit or explicit (Maison, Greenwald, and Bruin, 2004a). Implicit attitudes are automatic evaluations that are often activated without conscious control or cognitive effort (Greenwald and Banaji, 1995). They develop through past experiences and evaluations, which are unconsciously stored in

memory and are spontaneously and effortlessly retrieved whenever the attitude object appears. The observed discrepancy between implicit and explicit attitudes (Maison *et al.*, 2004a) can be attributed to the differences in underlying systems of processes through which the two attitude types are produced (Wilson *et al.*, 2000). Hofmann *et al.*'s (2005) meta-analytical study suggests that the use of implicit attitudes is beneficial and may help overcome social desirability or impression management biases that afflict explicit attitude assessments. To facilitate communication, we employ the terms implicit DCB and explicit DCB, as both implicit and explicit attitudes towards domestic and foreign products are used to assess DCB.

In general, country, product, and variation in attitude types pose problems for the generalizability of theories on consumers' preference for domestic and foreign products. Extant research has done little beyond recognizing the existence of such variations (Manrai, Lascu, and Manrai, 1998; Roth and Romeo, 1992; Story, 2005). To our knowledge, no study to date offers systematic theory on the variations of DCB across product categories or considers both implicit and explicit attitudes towards foreign and domestic products.

This study tries to understand such variations of DCB and proposes that the categorical concept of typicality may provide a solution to this issue. Loken and Ward (1990) show that typicality can explain the observed variation in attitudes towards brands. Building on Allport's (1954) ideas on the prevalence of categorical thinking (e.g. foreign/domestic product categories) in the formation of attitudes and Rosch's (1975) prototype theory, we

attempt to provide some explanations.

Thus, the purpose of this study is to examine whether product typicality can account for the identified inconsistencies in consumers' DCB across product categories. In contrast with other studies in the field that rely exclusively on explicit attitudes to assess DCB, this study takes both explicit and implicit attitudes into account to gain a better understanding of the product variation of implicit and explicit DCB. A common approach that governments or trade associations use to increase consumers' DCB is "buy-local" advertising campaigns (Cameron and Elliot, 1998).

The study examines how typicality can explain inconsistencies in primed (through "buy-local" ads) attitudes. Specifically, the study examines both un-primed and primed attitudes and implicit and explicit attitudes to approach DCB holistically.

This study contributes to the literature in two ways. First, the study addresses an important gap in the literature on DCB that fails to explain why bias is unequally distributed to different categories of domestic and foreign products. Building on prototype theory, this study attempts to provide a theoretical explanation of product variations of DCB by introducing a neglected moderating variable—that is, product typicality. Product typicality can help justify the differences in DCB reported in various empirical studies that employ product stimuli of different levels of typicality. Furthermore, the findings can help academic researchers in the field calibrate their research designs and selection of product stimuli.

Managers might find assessing the typicality of their products helpful to gauge the levels of DCB that might occur in different markets and adjust their marketing strategies accordingly. Second, the study provides evidence on implicit DCB, which we expect to differ from explicit DCB traditionally measured, as implicit DCB relies on different systems of processing. Together, implicit and explicit DCB can help better explain product variations of DCB but can also better predict purchasing of foreign and domestic products. Finally, the study examines the effectiveness of "buy-local" ads in priming implicit and explicit DCB for typical and atypical products. Doing so will help clarify the differential effects of such ads not only on typical and atypical products but also on implicit and explicit DCB.

Conceptual background and hypotheses

DCB inconsistencies and consumer ethnocentrism

The first report on DCB in marketing literature appeared in 1965 (Schooler, 1965) and showed that Guatemalans rated domestic products higher than foreign products from Central America. Other studies in the United States and other parts of the world (Baumgartner and Jolibert, 1978; Kaynak and Cavusgil, 1983; Schooler, 1971) confirmed the existence of DCB. These studies proved that DCB varied across product categories. Initial attempts to explain the variation in one part of DCB—attitudes towards foreign products—on the basis of country of origin were not always successful. Schooler (1971) found no interaction between

country of origin and product category. Baumgartner and Jolibert (1978) observed similar variations of DCB in France and Kaynak and Cavusgil (1983) in Canada. However, product variation seemed to persist beyond the country-of-origin effect, even when the studies accounted for the high reputation of products originating from certain countries. While country of origin explains some of the variability in attitudes towards foreign products (Hong and Wyer, 1989, 1990), ample empirical evidence confirms the existence of product variation in attitudes towards foreign products even when accounting for product-country images (e.g. Cattin *et al.*, 1982;; Heslop *et al.*, 1987;). Baumgartner and Jolibert (1978) proposed that the psychological/social risk entailed in each product category may explain product differences in DCB, but their empirical study did not confirm such an effect.

In 1987, the introduction of a new concept, consumer ethnocentrism (CE), was a milestone as it changed academic thinking and the focus of research on DCB. However, empirical studies (Manrai *et al.*, 1998; Roth and Romeo, 1992; Story, 2005) continued to report variations of DCB across product categories and failed to provide any theoretical explanation. Shimp and Sharma (1987), in their attempt to explain individual differences in DCB, introduced the concept of CE. This personality trait reflects "the appropriateness, indeed morality, of purchasing foreign-made products" (Shimp and Sharma, 1987, p. 280). Later, in 1995, Sharma *et al.* (1995, p. 27) explained that CE is a “trait-like property of individual personalities” that may influence consumers’ attitudes and behaviour towards

domestic versus foreign products. Shimp and Sharma's (1987) consumer goods survey indicated that CE correlates positively with general (but not specific product) evaluations of domestically manufactured products ($r = 0.38$) and negatively with evaluations of products from Europe ($r = –0.25$) and Asia ($r = –0.11$). According to these results, CE is better at predicting positive attitudes towards domestic products than negative attitudes towards foreign products. Other studies confirmed this asymmetry in the predictive ability of CE (e.g. Supphellen and Rittenburg, 2001). Shimp and Sharma (1987) also showed that "buy-local" ads (at the time, the "crafted with pride" campaign to buy U.S.-made products) altered the effect of CE on attitudes towards foreign products—a priming effect on attitudes that we explore herein.

Despite their breakthrough, Shimp and Sharma (1987) did not examine the effects of CE on specific categories of foreign or domestic products and did not attempt to answer the old question of product variation of DCB. Rather, Herche (1992) took on this task, finding in a Canadian sample that the effects of CE varied by product category. Subsequent studies with larger product category samples (Balabanis and Diamantopoulos, 2004; Cleveland et al., 2009) confirmed similar variations in CE effects across product categories, though they provided little theoretical explanations of such variation. In the next sub-section, we provide some explanation with the help of the product typicality construct.

Typicality

To understand the observed product variation, it is important to examine how attitudes towards foreign and domestic product categories are formed beyond the motivations explained by CE. DCB is a case of categorical thinking to explain out-group/in-group biases. According to Allport (1954), in categorical thinking the information a person has in mind about a particular class of objects—or, in our case, a category of products—is activated and applied to specific products within the category. This reduces the information-processing effort the individual requires to make a judgement or express an attitude. In her prototype theory, Rosch (1975) proposed that when objects are categorised, the members that make up a category have unequal status, with some members being more central than others. Accordingly, a prototype is the best example or the most representative member of a category. Prototype theory (Rosch, 1975) suggests that individuals assign objects to categories (e.g. domestic or foreign) by comparing them with prototypes. The construct of "typicality" was introduced to rate the centrality of the members of a category and their proximity to prototypes (Rosch, 1975). Loken and Ward (1990) empirically demonstrated the relevance of prototype theory and the typicality construct in marketing by introducing the concept of product typicality. Product typicality reflects the degree to which a product is perceived as representative of a product category (Loken and Ward, 1990). Products, similar to other objects, can be classified in multiple ways; one way relevant to DCB is by their domesticity

("foreign product" or "domestic product" category). Several studies on country-of-origin effects have used typicality (Gürhan-Canli and Maheswaran, 2000; Winit *et al.*, 2014), and it formed the foundation of Usunier and Cestre's (2007) product ethnicity concept. Tseng and Balabanis (2011) introduced the concept of ethnic product typicality, which they defined as the perceived representativeness of a country's product in the global market of that product category.

Ethnic product typicality, the construct we adopt herein may be an identity cue from which inferences about quality, status symbol, branding, manufacturing and design, and so on, are made, thus influencing consumers' responses. Furthermore, research has argued that typical products from one country attract more positive attitudes than atypical products from the same country because they possess attributes that consumers value more (Loken and Ward,, 1990). This notion is in line with the prototype effect (Fiske and Taylor, 1991), in which new stimuli are evaluated against a mental representation of the most typical member of a category or a prototype. Accordingly, when a product fits a person's mental representation or stereotypical image of a prototype of a domestic product, he or she is more likely to perceive that product as "more domestic" than a product that does not fit his or her mental representation of a prototype. Research in social psychology shows that stereotypical expectations of social groups or categories influence attitudes towards specific members of those groups or categories. Fiske and Neuberg (1990) find that typicality is an important

moderator, and thus for typical members of a category, stereotypical attitudes towards the category will have an assimilative effect on attitudes towards the typical member. This effect does not apply to the atypical members of a category. Fiske and Neuberg (1990) and Fiske *et al.* (1999) suggest that when people judge a member of a category as typical of that category, their attitudes towards the typical member will be more consistent to that of the category. For members judged as atypical, a re-categorization to a different category takes place, together with an attribute-by-attribute evaluation. This applies to the consumer milieu, in which products are members of the country category; the more typical a product is judged of a country, the more likely that stereotypical views of or sentiments towards the country will prevail in the product evaluation process. For domestic products, we expect that one's patriotic sentiments towards the home country will be more dominant in typical than atypical products of the county. As such, the more typical a product is (for the home country), the more likely it will benefit from positive attitudes towards domestic products, the common norm in many countries. We posit that positive attitudes towards domestic products will be higher for typical than atypical products.

Social identity theory supports that members of in-groups and out-groups are perceived more homogeneous and undifferentiated by individuals whose group identity is salient (Turner, 1982, 1987). A number of empirical studies (cited by Haslam et al.,1999) confirmed Turner's (1982, 1987) hypothesis of perceived of ingroup and outgroup

homogeneity. Theoretically, the construct of consumer ethnocentrism is based on social identify theory (Shimp and Sharma, 1987) and research shown that CE is strongly related to one's identification with his/her country (Keillor et al, 1996) . As such and in line with Turner's (1982, 1987) arguments individuals high in CE are expected to have a homogenised view of the domestic products (as well as foreign products) and to be less likely to discriminate between typical and atypical domestic products. In other words, CE will moderate the effect of product typicality on attitudes, as ethnocentric consumers will be less likely to have different perceptions for typical and atypical products. Thus, we hypothesise for both explicit and implicit attitudes the following:

H1a: Ethnic product typicality will have a positive effect on attitudes towards domestic products.

H1b: CE positively moderates the effect of ethnic product typicality on attitudes towards domestic products.

Implicit attitudes

By including implicit attitudes in this study, we aim to address the vulnerability of explicit attitude assessments to social desirability bias in cases such as DCB assessment. Greenwald and Banaji (1995, p. 5) define implicit attitudes as "introspectively unidentified (or inaccurately identified) traces of past experience that mediate favourable or unfavourable

feeling, thought, or action toward social objects," whereas explicit attitudes, which are typically measured in surveys, are consciously and deliberately formed. Implicit attitudes are automatically activated and are different from deliberative or controlled explicit attitudes (Greenwald and Banaji, 1995). However, empirical evidence of implicit and explicit attitudes suggests that they are related but distinct constructs (Nosek, 2005). Nosek (2005) finds that the implicit–explicit attitude relationship is negatively moderated by the prevalence self-presentation concerns (e.g. respondents are unwilling to report socially undesirable attitudes) or by individuals who are unfamiliar with or infrequently think about the object of attitudes. Furthermore, research on prejudice and stereotyping indicates that expressions of stereotypical bias comprise an implicit and an explicit attitude component (Devine, 1989). These studies provide a self-presentation argument, in that people try to establish or maintain a non-biased identity and to inhibit the expression of biased views when expressing explicit attitudes (Devine, 1989). However, Devine's (1989) dissociation theory suggests that even when people change their beliefs, stereotypical bias can remain in their memory and still be activated as implicit attitudes.

Similarly, Gawronski and Bodenhausen (2006) suggest an associative–propositional evaluation model to describe the dual (explicit–implicit) perspective of attitudes. They argue that implicit and explicit attitudes should be regarded in terms of their underlying mental processes. They identify two mental processes: (1) the associative process, which

corresponds to implicit attitudes, and (2) the propositional process, which corresponds to explicit attitudes.

Associative or implicit evaluations are best characterized as automatic affective reactions that result from the particular associations that are activated automatically when one encounters a relevant stimulus. This automatic response is gradually shaped by repeated encounters throughout a consumer's lifetime with stereotypical information for the stimuli.

Conversely, evaluations resulting from propositional processes can be characterized as evaluative judgements based on syllogistic inferences derived from any kind of propositional information considered relevant for a given judgement.

To assess in-group/out-group bias, Cunningham *et al.* (2004) examine explicit and implicit attitudes and find that implicit attitudes towards out-groups are more negative than explicit attitudes. They suggest that prevailing social norms regarding the expression of attitudes towards out-groups moderate the relationship between explicit and implicit attitudes. Maison *et al.* (2004a) report similar results when examining attitudes towards domestic and foreign products in Poland. They show that implicit attitudes towards local products were more positive than explicit attitudes, due to prevailing patriotic norms in Poland. They further note that implicit attitudes can better capture the affective processes underlying attitudes towards domestic and foreign products. Thus, because different mental processes underlie explicit and implicit attitudes, we posit that they will be weakly related to each other.

Meta-analytical evidence (Nosek, 2005) shows that explicit attitudes are weakly related to implicit attitudes and that the strength of that relationship depends on the context and the attitude object. Specifically, they found that the strength of the relationship will be determined by norms of what is socially desirable (e.g. norms to support the home country vs. norms to be impartial and unbiased towards foreign countries). Hence, in societies where ethnocentrism is expected and it socially acceptable as a norm there will less divergence in the explicit and implicit attitudes of consumer ethnocentric. The opposite effect will be expected ethnocentric consumers in societies where ethnocentrism is not socially acceptable. On the basis of the above, within a given society consumer ethnocentrism will moderate the discrepancy between explicit and implicit attitudes towards domestic and foreign products. Thus, we hypothesize the following:

H2a: Consumers' explicit attitudes towards domestic product will be weakly related to implicit attitudes towards domestic products.

H2b: Consumers' explicit attitudes towards foreign product will be weakly related implicit attitudes towards foreign products.

H2c: CE will moderate the relationship between explicit and implicit attitudes towards domestic (H2a) and foreign (H2b) products.

Interaction between typicality and implicit–explicit attitudes

The dual-attitude (or dual-process) model together with the concept of typicality may be able to help explain the observed DCB inconsistencies. Typicality seems to be more closely related to implicit than explicit attitudes. Specifically, typicality encourages category-based evaluations, which leads to faster evaluations and more confident attitudes (Lambert *et al.*, 1998; Lambert *et al.*, 2004; Livingston and Brewer, 2002). In their experimental research, Livingston and Brewer's (2002) find that typicality led to automatically activated evaluations (captured by implicit attitudes), whereas automaticity was not evident in the absence of typicality. As category-based evaluations are more likely to be automatically activated in typical products, the respective category associations will be more prominent in typical product evaluations

As a consequence, implicit attitudes will be influenced more by the respective product category associations than explicit attitudes will in typical product evaluations. Many positive global product category associations, as mentioned in the previous sections, will prevail in implicit attitudes towards typical products, free from the influence of the prevailing social norms, such as support for the home country. As a result, for typical products, the difference between consumers' implicit attitudes towards domestic and foreign products (i.e. implicit DCB) will be less than the same difference in consumers' explicit attitudes (i.e. explicit DCB). However, because category-based processing is less applicable to atypical products, we expect a similar level in implicit and explicit DCB for atypical products. Thus, we

hypothesize the following:

H3: Explicit DCB will be greater than implicit DCB for ethnic typical products.

Advertisements with ethnocentric cues

In addition to treating CE as a characteristic of an individual's disposition, prior studies have shown that many governments and local manufacturers through their associations have extensively used advertisements to protect local industry from foreign competition (e.g., Granzin and Olsen, 1995). The goal of such ads is usually to trigger more favourable attitudes towards domestic products by appealing to consumers' ethnocentric dispositions (Granzin and Olsen, 1995; Granzin and Painter, 2001). In addition, the impact of these types of ads can differ across products and countries (Jo, 1998) and also in the explicit and implicit attitudes generated.

Jo (1998) reports that advertising containing ethnocentric cues, especially in a country with intense foreign competition, is effective for domestic products, for which consumers have either distinctively superior or distinctively inferior quality evaluations. This finding provides us with an initial base to assume that advertising containing ethnocentric cues is effective for both typical and atypical products in consumers' explicit attitudes.

Advertising containing ethnocentric cues may awaken dormant feelings, increase consumers' awareness of (or accessibility to) dominant social norms, and reduce inhibitions

to explicit consumer expressions of DCB (i.e. in favour of a domestic product over foreign products). In summary, this study argues that advertising containing ethnocentric cues can effectively enhance explicit attitudes towards domestic products and reduce explicit attitudes towards foreign products for both typical and atypical products.

Nevertheless, the effectiveness of advertising containing ethnocentric cues in consumers' implicit attitudes might be different between typical and atypical products. According to H3, consumers tend to have strong, automatic global product category associations with typical products. Thus, their implicit attitudes towards typical products will be influenced more by global product category associations than by single advertising containing ethnocentric cues. Consequently, for typical products, we expect that advertising containing ethnocentric cues will be more effective in explicit attitudes than in implicit attitudes.

By contrast, consumers tend to be less familiar with atypical products, and as such, no strong global product category associations with the products exist in their implicit attitudes. However, advertising containing ethnocentric cues may activate consumers' associations with their home countries and thus enhance (reduce) their automatic responses to home (foreign) countries. Consequently, the implicit and explicit favouritism generated by advertising containing ethnocentric cues may be equally strong for atypical products. Thus:

H4a: For ethnically typical products, advertising containing ethnocentric cues will be

more effective in eliciting explicit DCB than implicit DCB.

H4b: For ethnically atypical products, advertising containing ethnocentric cues will be effective in eliciting both explicit and implicit DCB.

Study 1

Data collection

Study 1 collected data through a mall intercept survey method in a metropolitan area of Taiwan. Of the 256 consumers who agreed to participate, only 198 consumers actually participated and provided useable responses, for a response rate of 49%. Nine questionnaires were incomplete or not filled out properly, which left 189 respondents, 93 of whom were women (49%). Ages ranged from 18 to 65 years (M = 36, SD = 11). Though somewhat biased towards having higher education (46% of respondents had a college degree), the sample is fairly representative of the Taiwanese population with regard to demographics.

Measurement instruments

After a simple introduction about the study, respondents filled out questionnaires measuring their explicit attitudes towards specified products from specified countries. Following the measurement of explicit attitudes, respondents took the "single-category IAT" (SC-IAT) developed by Karpinski and Steinman (2006) on a laptop to gauge their implicit attitudes

towards each product. Measures of CE and demographics appeared at the end of the questionnaire. All the scales were back-translated into a Chinese version.

To account for product category differences, the study included two products from durables (bicycles and cars) and two products from perishable convenience purchases (pineapple cakes and *dorayaki*; *dorayaki* is a Japanese specialty red-bean pancake). The four products were assigned to two countries of origin: Taiwan and Japan. We chose Japan because the country is well known to Taiwanese consumers and it made experimentation easier. Table 1 provides the treatment schedule.

<Table 1. Here>

In addition, we chose the four products because they are common types of merchandise in Taiwan. To validate the selection of the stimuli, 30 local consumers rated the ethnic product typicality of the chosen stimuli for the two countries of origin on a 7-point Likert scale (1 = very atypical; 7 = very typical). The intra-class correlation coefficient among the 30 raters was high at 0.92, giving confidence in the levels of typicality of the used stimuli. We conducted several t-tests to check whether the values were significantly higher (i.e. typical) or lower (i.e. atypical) than the mid-point (i.e. 4). The results confirm that the four selected products were all typical or atypical products of each country (i.e. for Taiwanese products: cars: $t(29) = -16.55$, $p < 0.05$; bicycles: $t(29) = 15.31$, $p < 0.05$; pineapple cakes: $t(29) = 18.58$, $p < 0.05$; *dorayaki*: $t(29) = -15.50$, $p < 0.05$; for Japanese products: cars: $t(29)$

= 19.41, $p < 0.05$; bicycles: $t(29) = -16.16$, $p < 0.05$; pineapple cakes: $t(29) = -16.87$, $p < 0.05$; *dorayaki*: $t(29) = 19.34$, $p < 0.05$). To avoid possible confounding effects, we used a matching design in selecting the products (i.e. bicycles and pineapple cakes are typical products of Taiwan and atypical products of Japan, cars and *dorayaki* are typical products of Japan and atypical products of Taiwan).

For each of the four products from each of the two countries and for the explicit measure of attitudes, we used a three-item, 7-point Likert scale. The reliability of this scale was at acceptable levels (Cronbach's alpha coefficient = 0.84).

This study adopted the SC-IAT to measure the strength of evaluative associations with a single attitude object. Specifically, the study followed the two-stage procedure that Karpinski and Steinman (2006) suggest for each attitude object and applied Inquisit software to execute the SC-IAT on desktop computers to measure respondents' implicit attitudes towards the products. In line with the algorithm in Karpinski and Steinman's study, we calculated a D-score to represent consumers' implicit attitudes towards each ethnic product after the test. For the resulting D-scores, higher numbers indicated a favourable attitude. A reliability analysis on the SC-IAT measures revealed a reasonable level of internal consistency (adjusted $\gamma = 0.89$).

We measured CE with a five-item version of the CETSCALE (Steenkamp, Hofstede, and Wedel, 1999) on a 7-point scale (not agree at all/completely agree). Confirmatory factor

analysis indicated good fit for the measurement model of CE ($\chi^2(4) = 7.63$, $p = 0.11$; CFI = 0.99; GFI = 0.98; RMSEA = 0.07). Composite reliabilities were 0.98, and the average variance extracted was 0.89.

At the final stage, respondents evaluated the ethnic typicality of each product on the same scale used in the pilot test for the manipulation check. The results ($F(7, 1316) = 255.33$, $p < 0.01$) further confirm the selection of ethnically typical/atypical products in the study. All typical products have significantly higher ratings on the measures of ethnic typicality than all atypical products.

Results

Several repeated measures analyses of variance (ANOVAs) tested H1 and H3. As explicit and implicit attitudes use different metrics, we ran the ANOVAs separately for the implicit and explicit measures to test H3. We employed several 2 × 2 within-subjects designs, and the within-subjects factors and their levels used in the different analyses included the factors typicality (typical vs. atypical), domesticity (domestic vs. foreign product), and type of product (durable vs. non-durable). We used CE (CETSCALE) as a covariate. Demographics did not have a significant effect on the relationship and thus were omitted from the analysis. As there are only two levels for each of the within-subject factors, sphericity and compound symmetry assumptions do not apply.

As explicit and implicit attitudes are measured on different metrics, to enable their comparison as postulated in H3, respectively, we compared the size effects for explicit and implicit DCB. We employed the meta-regression facility of the "Comprehensive Meta-Analysis" software package to estimate Cochran's Q test.

We tested H1 and H3 using two product categories (durable and non-durable products). As such, product category served as a main effect and CETSCALE as a covariate. To test H1 and H3, all the main effects and lower-order interaction effects (i.e. two-way effects) need to be included in the model, even though such relationships were not hypothesised (see Table 2).

<Table 2. Here>

To test H1a, we used two repeated measures analyses of covariance (ANCOVAs) for the explicit and implicit attitudes towards the two domestic products, respectively. We employed a 2 × 2 within-subjects design (typicality and type of product). The results for explicit attitudes confirmed a statistically significant typicality effect ($F(1, 188) = 127.44$, $p < 0.001$, partial $\eta^2 = 0.405$). No interaction effect emerged between typicality and type of product (durable vs. non-durable). The estimated marginal mean for explicit attitudes towards typical domestic products was 5.644 and for atypical domestic products was 4.106. The same analysis applied to implicit attitudes towards domestic products also confirmed a significant typicality effect ($F(1, 188) = 185.289$, $p < 0.001$, partial $\eta^2 = 0.496$). There was no interaction effect between typicality and type of product. The marginal mean of implicit attitude scores

for typical domestic products was 0.956 and for atypical domestic products was –0.115. These results confirm H1a, as typical domestic products receive significantly more positive explicit and implicit attitudes than atypical products.

To test H1b, we included the median spit of CETSCALE as a between-subjects factor in the repeated measures ANOVAs used previously. The results confirm that typicality interacts with CE to predict explicit ($F(1, 187) = 14.020$, $p < 0.001$, partial $\eta^2 = 0.070$) and implicit ($F(1, 187) = 42.851$, $p < 0.001$, partial $\eta^2 = 0.186$) attitudes. An analysis of the marginal means reveals that positive attitudes towards typically domestic products are higher than those towards atypical products for both ethnocentric and non-ethnocentric consumers. CE has a positive effect on attitude scores of both typical and atypical products, but this effect is stronger on atypical than typical products (see plots in Figure 1). Thus, atypical domestic products are more likely than typical products to grab the attention of ethnocentric consumers. These results confirm H1b.

< Figure 1. Here>

To test H2, we calculated the average correlation coefficients (using Fisher z transformation) between explicit and implicit attitudes towards domestic and foreign products. The average correlation coefficient between explicit and implicit attitudes towards domestic products was 0.600 and for attitudes towards foreign (Japanese) products was 0.618. There was no significant statistical difference between the two correlation coefficients (Cochran's

$Q(1) = 0.306$, $p = 0.934$). The overall average correlation coefficient between explicit and implicit attitudes (towards both domestic and foreign products) was 0.609. Thus, H2a and H2b are partially supported, as explicit and implicit attitudes are not identical but are moderately correlated with each other. An examination of the average correlation coefficients revealed a difference between typical and atypical products. Specifically, the average correlation coefficients between explicit and implicit attitudes were as follows: for typical domestic products, 0.448; for atypical domestic products, 0.718; for typical foreign (Japanese) products, 0.166; and for atypical foreign (Japanese) products, 0.855. The differences between the four correlation coefficient were statistically significant ($Q(3) = 261.476$, $p < 0.001$). The correlation coefficient of typical foreign (Japanese) products was significantly lower than that of typical domestic products ($Q(1) = 18.449$, $p < 0.001$). The same was true for the difference of the correlation coefficient between atypical foreign (Japanese) and atypical domestic products ($Q(1) = 25.788$, $p < 0.001$). In general, explicit attitudes correspond better to implicit attitudes for atypical (foreign and domestic) products (average r = 0.797) than typical products (average r = 0.314). The difference between the two was statistically significant ($Q(1) = 217.239$, $p < 0.001$). As consumers are more familiar with typical products, they are better able to link them with thoughts and feelings about the country stored in memory than atypical products. Thus, implicit attitudes are less consistent to explicit attitudes when evaluate typical products (foreign or domestic).

To test H2c, we calculated the respective correlation coefficient between explicit and implicit attitudes for ethnocentric and non-ethnocentric consumer (the two groups were formed though a median split of CETSCALE). The results show that the average correlation coefficient between explicit and implicit attitudes (both domestic and foreign products) is higher for non-ethnocentric consumers (r = 0.627) than ethnocentric consumers (average r = 0.539). The difference is statistically significant (Q(1) = 6.645, $p < 0.01$). Thus, CE moderates the relationship between explicit and implicit attitudes, as H2c predicted. Explicit attitudes match implicit attitudes better in the case of non-ethnocentric attitudes.

A closer inspection shows that implicit and explicit attitudes correspond to each other more when the object of assessment is foreign products. Specifically, the average correlation coefficients between explicit and implicit attitudes towards domestic product are 0.480 (for non-ethnocentrics) and 0.392 (for ethnocentrics). The difference between the two correlation coefficients is not statistically significant (Q(1) = 2.175, $p = 0.140$). The corresponding correlations coefficients for attitudes towards foreign products were 0.740 (non-ethnocentrics) and 0.659 (ethnocentrics). The difference between the two correlation coefficients is statistically significant (Q(1) = 4.712, $p = 0.03$), which indicates that explicit and implicit attitudes correspond better to each other in non-ethnocentrics' assessment of foreign products.

How well does CE predict explicit and implicit attitudes? Correlation analysis showed that the average correlation coefficient (after Fisher z transformation) between CETSCALE

and explicit attitudes towards domestic products was 0.646, whereas, the average correlation coefficients between CETSCALE and explicit attitudes towards foreign products was –0.431. The corresponding average correlation coefficients for implicit attitudes were 0.569 (domestic products) and 0.084 (foreign products). The difference between the two average correlation coefficients (e.g.,CETSCALE with explicit and implicit attitudes towards domestic products respectively) is not statistically significant ($z = 1.259$, $p = 0.208$), while the corresponding difference for attitudes towards foreign products is significant ($z = 4.217$, $p < 0.001$). Thus, the study confirms that CE is a better predictor of attitudes towards domestic products than attitudes towards foreign products. Furthermore, the study shows that CE can adequately predict implicit attitudes towards domestic products but that it is a poor predictor of implicit attitudes towards foreign products.

A repeated measures ANOVA tested H3 (Table 2). The domesticity variable in Table 2 captures DCB, as it checks how consumers' attitudes vary when the product is foreign or domestic. For comprehension purposes, we refer to the domesticity variable effects and its interactions as DCB effects hereinafter. As the results of Table 2 indicate, the main effect of domesticity (DCB) is statistically significant on both implicit and explicit attitudes (for typical and atypical products). As the higher-order three-way interaction effect (domesticity × product category × CETSCALE) is statistically significant for typical (explicit measures of attitudes) and atypical (explicit and implicit measures of attitudes) products, the main effect

of domesticity is not universal and needs further elaboration. The same is true for the domesticity effect on implicit attitudes (in typical products), for which the two-way interaction effect (domesticity × CETSCALE) is statistically significant ($F(1, 186) = 5.071$, $p = 0.025$). An examination of the post hoc results reveals that CETSCALE moderates the effects (direction and magnitude) of domesticity on explicit and implicit attitudes towards a typical and atypical product. An inspection of the slope plots indicates that DCB (i.e. favourable attitudes towards domestic products and unfavourable attitudes towards foreign products) is constrained only for respondents with high scores in CETSCALE. Those with low CETSCALE scores do not display any DCB. To explore this further, we examined the identified interaction effect of domesticity × product category on explicit and implicit attitudes at different levels of the CETSCALE. We used a median split of the sample on the CETSCALE and ran separate ANOVAs for each CETSCALE grouping. Because we found that DCB is relevant only for the group with high CETSCALE scores (ethnocentric consumers), we used the results of this group to test H3. In the ethnocentric group, the ANOVA results indicated a significant main effect of domesticity on explicit and implicit attitudes. Specifically, for typical products, the main effect of domesticity on explicit attitudes was statistically significant ($F(1, 88) = 113.266$, $p < 0.001$, partial $\eta^2 = 0.563$). By contrast, the same effect on the implicit attitudes was not statistically significant ($F(1, 88) = 0.041$, $p = 0.840$, partial $\eta^2 = 0.000$). In the atypical products, the effects of domesticity on explicit (F(1,

88) = 168.791, $p < 0.001$, partial $\eta^2 = 0.657$) and implicit (F(1, 88) = 104.159, $p < 0.001$, partial $\eta^2 = 0.542$) attitudes were statistically significant.

A check of the interaction effects (domesticity × product category) on measured attitudes revealed two statistically significant effects: (1) an effect on the explicit attitudes towards typical products (F(1, 88) = 25.455, $p < 0.001$, partial $\eta^2 = 0.224$) and (2) an effect on the implicit attitudes towards atypical products (F(1, 88) = 28.611, $p < 0.001$, partial $\eta^2 = 0.246$). The results suggest an unequal DCB for the durable and non-durable products in these two instances. Given that the main effect of domesticity on explicit and implicit attitudes (DCB) is not uniform in durable and non-durable products, H3 must be tested separately for durable and non-durable products.

As the metric for the dependent variables (explicit and implicit attitudes) are different, we estimated the metric-free size effects of the main effects of domesticity (for each product category) and used them to test H3. Following the guidelines of Dunlap *et al.* (1996) and Morris and DeShon (2002), we calculated Cohen's d for repeated measures (adjusted for bias) for each type of product. Table 3 reports the results.

<Table 3. Here>

We calculated the size effects (combining Cohen's d for durable and non-durable products) for explicit and implicit measures and report them in the last column of Table 3. The size effect for explicit measures (typical products and fixed effects model) was 0.0836 (z

= 9.549, $p < 0.001$) and for the implicit measures was 0.015 (z = 0.201, $p = 0.841$). The total Cochran's Q total within statistic (Q(2) = 4.339, $p = 0.114$) indicated that the effects do not vary significantly for explicit and implicit attitudes and can be used to test differences between the two attitudes. Overall, Cochran's Q confirmed that the size effects for explicit and implicit attitudes are statistically different (Q(3) = 55.032, $p < 0.001$). This confirms H3 that explicit DCB is greater than implicit DCB in typical products.

We applied the same procedure for atypical products. The last column of Table 3 shows the size effects (combined durable and non-durable products) for explicit and implicit attitudes (using the fixed model). Both effects are statistically significant (1.352, z = 13.038, $p < 0.001$ and 1.047, z = 11.218, $p < 0.001$). The product effects within each sub-group (explicit and implicit) were homogeneous with a total within Q statistic (Q(2) = .680, $p = 0.712$). Overall, Cochran's Q statistic indicated that the size effects for explicit and implicit attitudes were not statistically different (Q(3) = 5.468, $p = 0.141$). This result confirms that for atypical products, explicit DCB does not differ from implicit DCB.

Discussion of Study 1

The theoretical framework proposes that DCB can be inconsistent for ethnically typical products but consistent for atypical products. Ethnocentric attitudes are consumers' disposition to favour domestic products over foreign products. Such manifestations of

ethnocentrism can vary across product categories (Balabanis and Diamantopoulos, 2004; Cleveland et al., 2009) and be inconsistent between explicit and implicit attitudes (Maison et al., 2004a). To date, researchers have not generated a general theory to explain the phenomena.

The findings of Study 1 confirm the inconsistency between explicit and implicit DCB, but only for typical products. CE does not reduce the inconsistency. Ethnocentric consumers clearly favour typical domestic over foreign products, but such an effect is not evident in their implicit attitudes. Their level of favourability for typical domestic products is only slightly higher than those for typical foreign products. This may be explained by consumers' more frequent exposure to typical than atypical products and the generation of associations that trigger category processing (Barsalou, 1985). The repeated encounters of typical products reinforce stereotypical associations at an early age and encourage automatic activation of attitudes (i.e. implicit attitudes) when a relevant cue is presented (Wilson *et al.*, 2000).

For atypical products, there is no inconsistency between explicit and implicit DCB. One explanation is that consumers tend to generate weaker associations for atypical than typical products. In the absence of strong associations with atypical products, social norms of ethnocentrism will have a proportionately stronger influence on consumers' attitudes (DCB). CE seems to have little effect on moderating this inconsistency. Explicit and implicit attitudes are consistent for both ethnocentric and non-ethnocentric consumers for both domestic and

foreign atypical products.

In summary, Study 1 shows that consumers exhibit inconsistent implicit or explicit DCB towards typical products. While the inconsistency is significant in typical products, such inconsistency is not significant in atypical products. Although the presence of ethnocentrism in consumers increases the incidence of DCB, many governments and companies may try to use ethnocentric messages to trigger dormant patriotic sentiments to increase consumption of domestic products. Study 1 deals with DCB and cannot capture the impact of such advertising campaigns on the key variables. Therefore, Study 2 tries to manipulate such advertisements to check their effectiveness in the dual-attitudes system across products.

Study 2

To examine the effectiveness of advertising containing ethnocentric cues, Study 2 was an experiment using another set of products from neighbouring China. While China shares similar cultural roots with Taiwan, prior studies (e.g., Pereira, Hsu, and Kundu, 2002) have shown that the two diverge in terms of ethnocentrism, with Chinese consumers being more ethnocentric than the Taiwanese. According to these studies, recent political history and China's economic and military superpower status have rendered China more competitive and ethnocentric than Taiwan. Moreover, ideologically, the government frequently and actively promotes ethnocentrism and national pride to citizens, sometimes by encouraging insularity

from outside media influences (for an extensive historical account of ethnocentric roots in both countries, see Lai, 2009). As such, China serves as an ideal basis for the purposes of Study 2.

Experiment design and stimuli selection

This experiment applied a between-subjects 2 × 2 ANCOVA design. The first factor served to prime the participants (ethnocentric cue vs. no ethnocentric cue advertisement), and the second factor was domesticity (domestic vs. foreign product). CETSCALE was the covariate. However, the covariate (CETSCALE) interacted with one of the factors (domesticity), and thus the homogeneity of slopes assumption was violated. To deal with this problem, we used a median split of the CETSCALE. We included the resulting groupings (CET-SPLIT) in the ANOVA as a main effect. Similar to Study 1, to test H4a and H4b, we ran two ANOVAs separately for typical and atypical products. We also analysed explicit and implicit attitudes separately because they use different metrics. The experimental setting was China (domestic country). In this study, Korea and China were the foreign country and the home country, respectively. Korea served as the foreign country in this experiment because Chinese consumers are quite familiar with various products from Korea and a large number of different Korean products are available in the market. Therefore, Chinese consumers can easily differentiate between various Korean products according to their ethnic product

typicality.

We chose tea and ginseng as the product stimuli. Chinese tea and Korean ginseng are typical products, while Chinese ginseng and Korean tea are atypical (see Table 4). To confirm typicality, 30 Chinese raters assessed them following the same procedure as in Study 1. The results revealed high intra-class correlation coefficients (0.84) and confirmed the selection (for Chinese products: tea: $t(29) = 12.95$, $p < 0.05$; ginseng: $t(29) = –6.62$, $p < 0.05$; for Korean products: tea: $t(29) = –9.90$, $p < 0.05$; ginseng: $t(29) = 15.89$, $p < 0.05$).

<Table 4. Here>

Participants and procedures

Participants were 200 Chinese students at a college in Shanghai, China. The students were randomly assigned to the eight conditions in a balanced method (i.e. students drew lots to decide which condition they fell into). The advertisement manipulation included either an ethnocentric prime or no ethnocentric prime. After a simple introduction about the study, the group with advertising containing ethnocentric cues saw a slide depicting an ad stating, “Buy Chinese and save our fellow Chinese! Otherwise, foreign company competition will drive local industries into a corner”; the other group did not see this slide and were asked to proceed directly to the questionnaire. We adapted the advertising containing ethnocentric cues from Jo (1998).

We used the same attitudes scales for the explicit measures as in Study 1. The reliability was at an acceptable level (Cronbach's alpha coefficient = 0.98). After completing the questionnaire of explicit attitudes, all participants were asked to go through the test procedure to provide a measurement of their implicit attitudes towards the same product. We applied a procedure similar to that in Study 1; the measures revealed good internal consistency (adjusted $\gamma = 0.81$).

At the end of the study, participants rated their CE on the five-item version of the CETSCALE (Steenkamp et al., 1999) with 7-point scales for the measure. A confirmatory factor analysis confirmed the reliability and validity of the CETSCALE ($\chi^2(4) = 8.14$, $p = 0.09$; CFI = 0.99; GFI = 0.98; RMSEA = 0.07). The composite reliability was 0.98, and the average variance extracted was 0.90.

Similar to Study 1, to check manipulations, all participants evaluated typicality of the product in the final stage of the questionnaire. The results ($t(198) = 19.24$, $p < 0.01$) confirm the selection of typical/atypical products in this study. All scales were back-translated from English into Chinese.

Results and discussion of Study 2

The dependent variables in this study were consumers' explicit and implicit attitudes (attitude types in Table 5). We averaged the scores of the items for measuring explicit attitudes. For

participants' implicit attitudes, similar to Study 1, a D-score was produced for each participant and stimulus. Both scores were the same as in Study 1.

An ANOVA tested the hypotheses. Domesticity, ethnocentric priming, and CETSCALE groups (CET-SPLIT) were the fixed factors. The domesticity factor refers to consumers' attitudes towards domestic and foreign products and represents DCB.

<Table 5. Here>

Table 5 reports the ANOVA results. All interactions were included. The two-way interaction (ethnocentric priming × domesticity) is pertinent to H3a and H3b. The results indicate a statistically significant interaction effect for explicit attitudes, but only for the typical products. However, the interaction effects were statistically significant for both types of attitudes in the atypical products. As there were no significant effects in the higher-order (three-way) interactions, these two-way interaction effects are not different between ethnocentric and non-ethnocentric consumers. We further explored the significant interaction effects by checking the means in Table 6. To test H4a and H4b, given the differences in the metrics of implicit and explicit attitudes, we estimated a metric-free effect size measure (bias corrected Cohen's d). The results reported in Table 6 confirm that ethnocentric priming (advertising campaign) has an effect on explicit attitudes towards both domestic (positive effect) and foreign (negative effect) products. However, the reported confidence intervals (95%) show that ethnocentric priming has no significant effect on implicit attitudes towards

typical domestic and foreign products. Cochran's Q test compared the absolute effect size of ethnocentric priming on the explicit attitudes towards domestic and foreign products. The results show that the effect size ($Q(1) = 1.363$, $p = 0.162$) was not statistically different between domestic and foreign products. This suggests that the priming effect on attitudes is of a similar magnitude (though of different directions) on explicit attitudes towards domestic and foreign typical products. Cochran's Q tests in Table 6 indicate that in typical products, the influence of ethnocentric priming is statistically stronger in explicit attitudes than implicit attitudes towards both domestic and foreign products ($Q(1) = 8.894$, $p < 0.01$ and $Q(1) = 6.870$, $p < 0.01$). These results provide empirical support for H4a.

H4b suggests that for ethnically atypical products, ethnocentric priming is equally effective for both explicit and implicit attitudes. The reported Cochran's Q test in Table 6 shows no statistical difference between the effects of ethnocentric priming on explicit and implicit attitudes towards both domestic and foreign products ($Q(1) = .362$, $p = 0.553$ and $Q(1) = 1.518$, $p = 0.152$). This confirms H4b.

The results show that ethnocentric advertising does not have any effect on consumers' implicit attitudes towards ethnically typical products. However, implicit attitudes are based on an association process, so repeated or long-term exposure to ethnocentric advertising may be required to change implicit attitudes towards typical products. Nevertheless, the presence of a significant effect of ethnocentric advertising on consumers' explicit attitudes towards

typical products reveals that such campaigns can generate strong normative influences. By contrast, a long-standing positive stereotype of ethnically typical foreign products in consumers' minds can produce favourable automatic responses (i.e. implicit attitudes) that cannot be easily altered by an advertising campaign. As such, a longer-term approach of nurturing ethnocentrism is required to alter attitudes.

The results show that advertising containing ethnocentric cues is effective in activating both explicit and implicit attitudes in the dual-attitudes system when it comes to ethnically atypical products. Weak associations and unfamiliarity with atypical products may facilitate the effectiveness of such advertisements.

General discussion and implications

Theoretical implications

This research uses ethnic product typicality to account for the variations in DCB attitudes in the dual-attitudes system across products. Two studies, conducted in Taiwan and China, examine how DCB, whether generated by an intrinsic pre-disposition or activated by advertising containing ethnocentric cues, can vary between consumers' explicit and implicit attitudes across product categories. The results throw light on DCB and confirm that DCB can be inconsistent between explicit and implicit measures for ethnically typical products. Consistent with the literature (Barsalou, 1985; Loken and Ward, 1990) this study confirms

that a country's typical products can attract favourable consumer attitudes.

This research further provides empirical evidence to support the argument that ethnic product typicality can implicitly reduce consumers' bias towards foreign products, which casts doubts on the inescapability of DCB in ethnically typical products. Although ethnocentric consumers (consumer recording high CETSCALE scores) or consumers exposed to patriotic ads will explicitly express their support for domestic products, their implicit attitudes unconsciously betray the pervasiveness of positive attitudes towards ethnically typical foreign products developed over time.

Such inconsistency in DCB for ethnically typical products and the unassailability of implicit attitudes of both ethnocentric and non-ethnocentric consumers bring a note of caution regarding the predictive ability of the CETSCALE on implicit DCB. This calls for further examination of the CE measure, which may capture only broad, explicit pre-dispositions and may be influenced by social norms or beliefs that inhibit their expression. Some ethnocentric sentiments may not be in the sphere of consumers' conscious awareness. Thus, an assessment of the implicit aspects of CE may improve the predictive validity of DCB. The automaticity of the implicit attitudes makes it easier to bring out such "irrationally" favourable responses for such category of products.

Managerial implications

This study identifies two cases of inconsistencies in DCB. The first is the inconsistency between implicit and explicit attitudes, and the second is that this inconsistency is moderated by products' ethnic typicality. The measurement of both implicit and explicit attitudes can increase prediction of buying behaviour. The dominant model suggests that each attitude type is sufficient in predicting different types of behaviours, whereas other models have found an additive effect in which the use of both types of attitudes results in better prediction of behaviours (Maison el al., 2004b;). Managers and policy makers should measure both implicit and explicit DCB to gain an accurate picture of the situation.

In general, the results of the two studies suggest that ethnically typical products, when it comes to implicit attitudes, are less vulnerable to DCB than atypical products. Consumers favour ethnically typical domestic products and implicitly seem to show less DCB towards typical foreign products. Therefore, manufactures, designers, and brand managers should strive to ensure that their target market identifies products as ethnically typical to forestall possible DCB. In doing so, managers should understand how consumers categorise a product as typical. Loken and Ward (1990) find that perceived typicality increases when achieving attribute resemblance with other products in the same (global product) category, thus increasing the frequency of instantiation (i.e. placing products in stores, at trade shows and so on, is an example of the global product category); when making the product relevant to consumers' buying criteria; and when enhancing the salience of attributes (attribute structure)

common in global prototypes of the product. Companies should then monitor the perceived typicality of their products in different national markets to assess these products' vulnerability to ethnocentric social norms and accordingly adjust their strategies.

Atypical products suffer from DCB to a greater extent than typical products. The origin of atypical products becomes an important issue and should be managed carefully in international communication and distribution strategies of those products. When targeted to ethnocentric consumers, foreign products should be locally or neutrally branded in terms of national origin to cater to the preferences of local consumers. Marketers of foreign companies should downplay country image for atypical products in this case, and marketing communications should emphasize product benefits rather than country origin (Roth and Romeo, 1992; Verlegh, Steenkamp, and Meulenberg, 2005).

Prior research suggests that "Buy National" campaigns are relatively ineffective (Fenwick and Wright, 2000). The current study confirms that this may be due to the difficulty in altering ingrained implicit attitudes towards ethnically typical products (domestic or foreign). Similarly, Johansson and Nebenzahl (1987) claim that to increase effectiveness, such campaigns should include a normative influence (social norm favouring patriotic behaviour) rather than a cognitive influence (i.e. influencing attitudes towards domestic and foreign products). One implication is that "Buy National" campaigns should differentiate between typical and atypical products. Doing so is possible because many of these campaigns

are initiated by trade associations and have a product focus. Patriotism should be emphasized and product benefits should be deemphasized when the products are atypical. Conversely, both patriotism and product benefits should be emphasized for typical products.

Future research directions

Additional research could attempt to extend this study's findings by using different stimuli and samples of consumers to further establish the external validity of the findings. An investigation of the impact of the inconsistency between explicit and implicit attitudes on actual consumer behaviour is also worthy of consideration. Prior research has over-relied on survey measures (explicit) and thus may only offer a partial and, thus, misleading view of products and the effects of their buy-local campaigns. Maison *et al.* (2004b) suggest that implicit attitudes are better at predicting impulsive and emotional purchases than explicit attitudes. Further research could test how these conditions (impulsivity and emotionality) may intensify the observed difference in explicit and implicit DCB. In summary, this study shows that ethnic product typicality can effectively account for product variations in the explicit and implicit attitudes towards both foreign and domestic products.

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Table 1

The stimuli for study 1 mixed design

	Domestic product	Foreign product
Typical product		
-durable	Taiwanese Bicycle	Japanese Cars
-non-durable	Taiwanese Pineapple cakes	Japanese Dorayaki
Atypical product		
-durable	Taiwanese Cars	Japanese Bicycles
-non-durable	Taiwanese Dorayaki	Japanese pineapple cakes

Table 2

Results of Repeated Measures ANOVA for Typical and Typical Products (study 1)

		Typical products	Atypical products

Source	Attitude Measures	F	Sig.	Partial Eta Squared	F	Sig.	Partial Eta Squared
Domesticity	Explicit	**492.728**	**0.000**	0.725	**140.136**	**0.000**	0.428
	Implicit	**11.877**	**0.001**	0.060	**48.283**	**0.000**	0.205
Domesticity * CETSCALE	Explicit	**369.806**	**0.000**	0.664	**316.770**	**0.000**	0.629
	Implicit	**5.071**	**0.025**	0.026	**151.053**	**0.000**	0.447
Product Category	Explicit	2.974	0.086	0.016	0.427	0.514	0.002
	Implicit	**3.888**	**0.050**	0.020	**4.691**	**0.032**	0.024
Product category * CETSCALE	Explicit	**6.081**	**0.015**	0.031	**8.259**	**0.005**	0.042
	Implicit	0.397	0.530	0.002	0.614	0.434	0.003
Domesticity * Product category	Explicit	**22.266**	**0.000**	**0.106**	**8.604**	**0.004**	0.044
	Implicit	0.177	0.675	**0.001**	0.071	0.791	0.000
Domesticity * Product category * CETSCALE	Explicit	35.774	**0.000**	0.161	3.847	0.050	0.020
	Implicit	0.192	0.662	0.001	7.001	**0.009**	0.036

Table 3

Size Effects of Attitudinal Home Country Bias for Different Categories of Products in the Ethnocentric Consumers Group (study 1)

		Mean	Std. Dev	Difference	Cohen's d	Common Cohen's d
Typical						
Explicit measures						
Durable	Domestic	6.228	0.800	0.614	1.026	0.836
	Foreign	5.614	0.674			
Non-Durable	Domestic	5.996	0.608	0.269	0.682	
	Foreign	5.727	0.656			
Implicit measures						
Durable	Domestic	1.115	0.409	-0.014	-0.039	0.015
	Foreign	1.129	0.422			
Non-Durable	Domestic	1.232	0.472	0.027	0.069	
	Foreign	1.204	0.502			
Atypical						
Explicit measures						
Durable	Domestic	4.981	0.862	1.992	1.386	1.352
	Foreign	2.989	1.328			
Non-durable	Domestic	4.816	0.902	1.962	1.320	
	Foreign	2.853	1.399			
Implicit measures						
Durable	Domestic	0.530	0.675	1.187	0.979	1.047
	Foreign	-0.656	0.835			
Non-durable	Domestic	0.662	0.757	1.523	1.184	
	Foreign	-0.860	0.909			

Table 4
Stimuli for study 2

	Domestic product	Foreign product
Typical product	Chinese Tea	Korean Ginseng
Atypical product	Chinese Ginseng	Korean Tea

Table 5

ANOVA Results for Typical and Typical Products (study 2)

		Typical			Atypical		
Source	**Attitude Measures**	**F**	**Sig.**	**Partial Eta Squared**	**F**	**Sig.**	**Partial Eta Squared**
Ethnoc-priming	**explicit**	0.927	0.338	0.010	7.936	**0.006**	0.079
	implicit	2.248	0.137	0.024	0.006	0.940	0.000
Domesticity	**explicit**	35.260	**0.000**	0.277	88.384	**0.000**	0.490
	implicit	0.996	0.321	0.011	33.352	**0.000**	0.266
CET-split	**explicit**	14.917	**0.000**	0.140	0.166	0.684	0.002
	implicit	0.007	0.935	0.000	0.042	0.838	0.000
Ethnoc-priming * Domesticity	**explicit**	60.949	**0.000**	0.398	34.984	**0.000**	0.276
	implicit	0.034	0.855	0.000	18.470	**0.000**	0.167
Ethnoc-priming * CET-split	**explicit**	0.074	0.786	0.001	0.020	0.889	0.000
	implicit	1.286	0.260	0.014	0.047	0.828	0.001
Domesticity * CET-split	**explicit**	15.113	**0.000**	0.141	7.588	**0.007**	0.076
	implicit	1.932	0.168	0.021	2.519	0.116	0.027
Ethnoc-priming * Domesticity * CET-split	**explicit**	0.011	0.915	0.000	0.913	0.342	0.010
	implicit	0.911	0.342	0.010	1.276	0.262	0.014

Table 6

Averages and Size Effects of Ads with Ethnocentric Cues on Explicit and Implicit Attitudes

	Attitude Measures	Ethnoc-Primed Group		Control group						
		mean	SD	mean	SD	Mean Difference	Cohen's d (corrected for bias)	CI lower	CI upper	C
Typical Products										
Domestic	Explicit	5.560	0.497	4.453	0.543	1.107	2.091	1.402	2.781	
Domestic	Implicit	0.935	0.345	0.755	0.578	0.180	0.372	-0.187	0.931	
Foreign	Explicit	3.973	0.585	4.987	0.825	-1.013	-1.395	-2.013	-0.777	
Foreign	Implicit	0.786	0.478	0.722	0.703	0.064	0.105	-0.450	0.660	
Atypical Products										
Domestic	Explicit	4.600	0.360	4.040	1.051	0.560	0.702	0.130	1.273	
Domestic	Implicit	0.344	0.568	-0.236	0.522	0.580	1.047	0.456	1.638	
Foreign	Explicit	1.733	0.782	3.253	0.944	-1.520	-1.726	-2.376	-1.077	
Foreign	Implicit	-1.076	0.630	-0.440	0.603	-0.636	-1.014	-1.603	-0.425	

Table 7

The procedure of SC-IAT in this study

SC-IAT					
Stage	Block	Trials	Function	Left-key response	Right-key response
1	1	24	Test	Good words + attitude objects	Bad words
2	2	24	Test	Good words	Bad words + attitude objects

Table 8

Target words used in the SC-IAT

SC-IAT target words

Good	Bad
Beautiful	Angry
Celebrating	Brutal
Cheerful	Destroy
Excellent	Dirty
Excitement	Disaster
Fabulous	Disgusting
Friendly	Dislike
Glad	Evil
Glee	Gross
Happy	Horrible
Laughing	Humiliate
Likable	Nasty
Loving	Noxious
Marvellous	Painful
Pleasure	Revolting
Smiling	Sickening
Splendid	Terrible
Superb	Tragic
Paradise	Ugly
Triumph	Unpleasant
Wonderful	Yucky

Source: *Karpinski and Steinman (2006)*

Figure 1.

Interaction plots for typicality, type of attitude and domesticity of the product in study 1

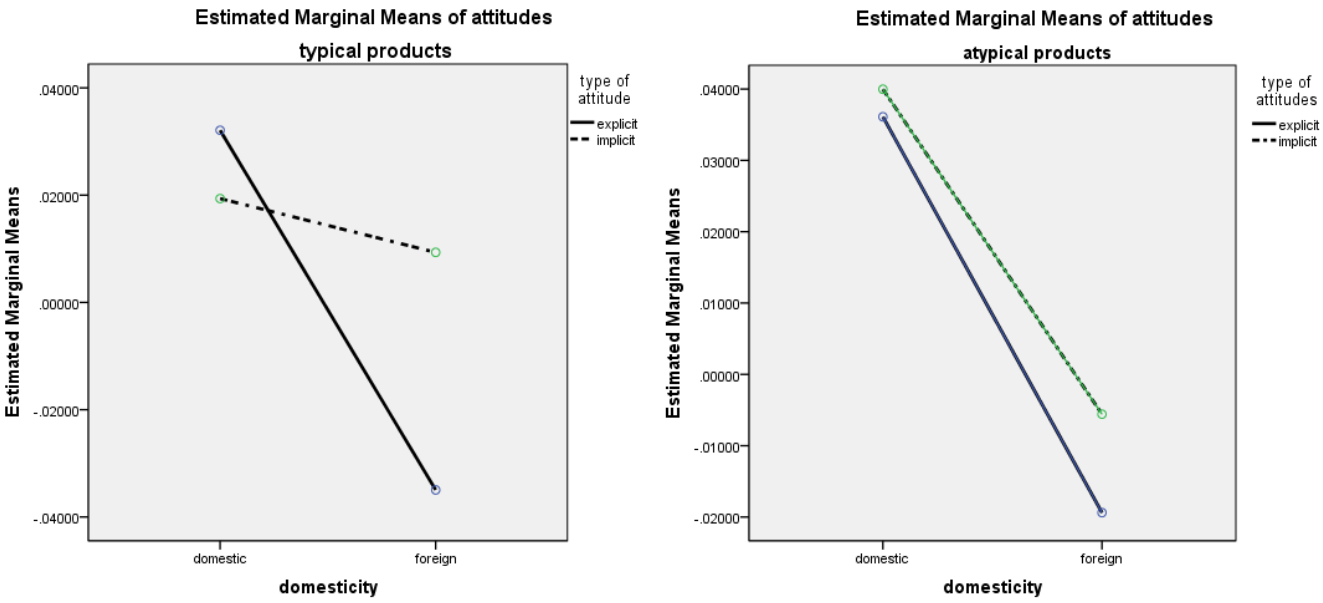

Figure 2

Interaction plots for ethnocentrism, typicality, type of attitude and domesticity of the product in study 1

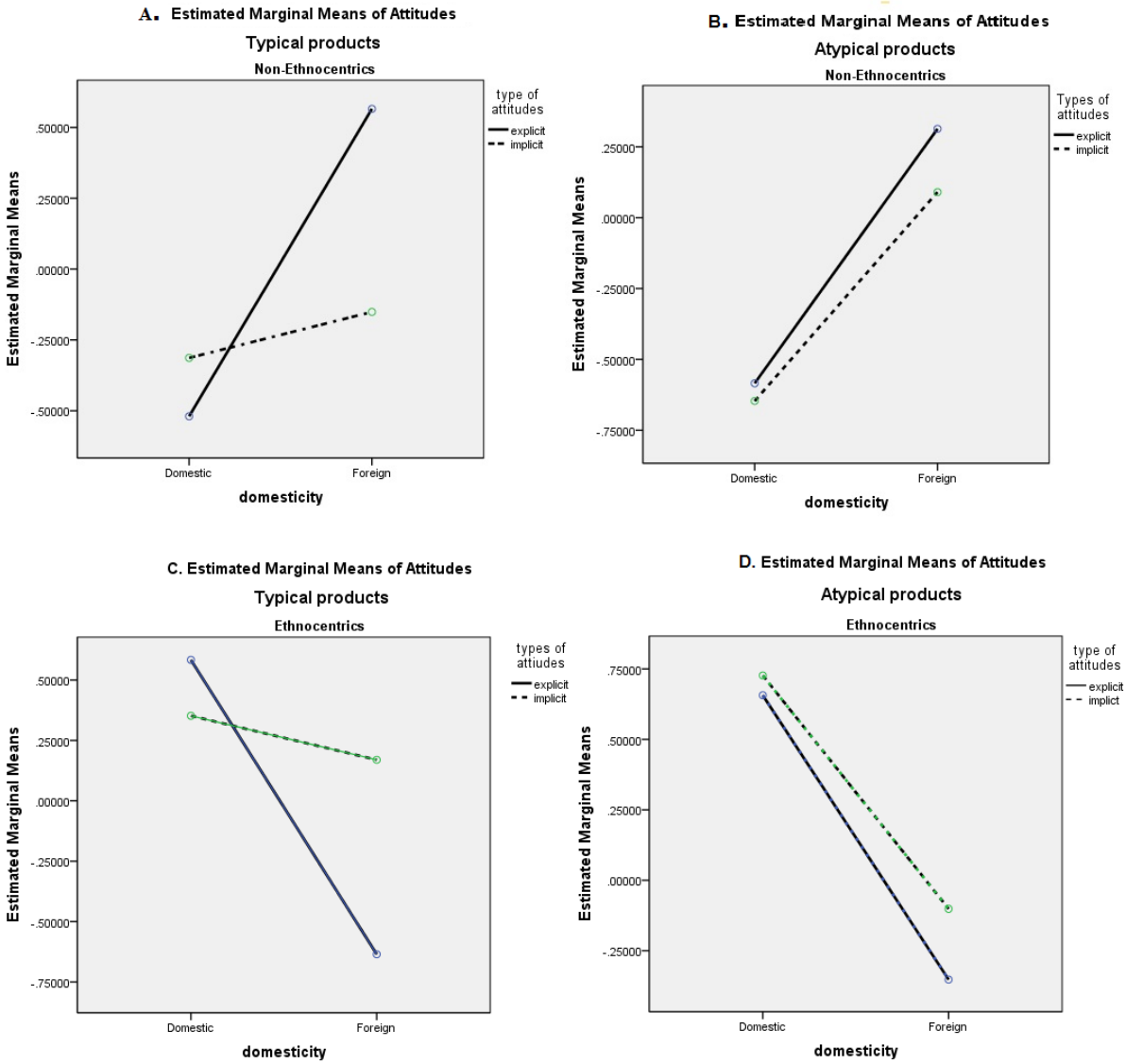
A. Estimated Marginal Means of Attitudes
Typical products
Non-Ethnocentrics
Estimated Marginal Means
.50000
.25000
.00000
-.25000
-.50000
Domestic
Foreign
domesticity
type of attitudes
explicit
implicit
B. Estimated Marginal Means of Attitudes
Atypical products
Non-Ethnocentrics
Estimated Marginal Means
.25000
.00000
-.25000
-.50000
-.75000
Domestic
Foreign
domesticity
Types of attitudes
explicit
implicit
C. Estimated Marginal Means of Attitudes
Typical products
Ethnocentrics
Estimated Marginal Means
.50000
.25000
.00000
-.25000
-.50000
-.75000
Domestic
Foreign
domesticity
types of attiudes
explicit
implicit
D. Estimated Marginal Means of Attitudes
Atypical products
Ethnocentrics
Estimated Marginal Means
.75000
.50000
.25000
.00000
-.25000
Domestic
Foreign
domesticity
type of attitudes
explicit
implict

Figure 3

Interaction effects for study 2